RFP-1325.02 (REV. 3/98)
Previously RF-46522

CORRES. CONTROL
INCOMING LTR NO.

00599 RF 98

DUE DATE
ACTION

B123

20 APR 98 2:: 23

- RFETS-CC-

Department of Energy

ROCKY FLATS FIELD OFFICE
P.O. BOX 928
GOLDEN, COLORADO 80402-0928

APR 20 1998

98-DOE-03704

DIST.	LTR	ENC
BACON, R.F.		
BENSUSSEN, S.J.		
BORMOLINI, A.M.		
BOYTER, N.C.		
BRAILSFORD, M.D		
BURDGE, L		
CARD, R.G.		
COSGROVE, M.M.		
COULTER, W.L.		
CRAWFORD, A.C.		
DERBY, S.		
DIETERLE, S.E.		
FERRERA, D.W.		
FERRERA, K.P.		
GERMAIN, A.L.		
GILPIN, H.E.		
HARDING, W.A.		
HARROUN, W.P.		
HEDAHL, T.G.		
HILL, J.A.		
MARTINEZ, L.A.		
NORTH, K.		
PARKER, A.	X	X
PHILLIPS, F.J.	X	X
RHOADES, D.W.		
RODGERS, A.D.		
SANDLIN, N.B.		
SPEARS, M.S.		
TILLER, R.E.		
TUOR, N.R.		
VOORHEIS, G.M.		
Kirk	X	X
Shelton	X	X

COR. CONTROL	X	X
ADMN. RECORD		
PATS/T130G		

Reviewed for Addressee
Corres. Control RFP

4/20/98 JK
Date By

Ref Ltr. #

DOE ORDER # 5400.1

Mr. Steve Gunderson
RFCA Project Coordinator
Colorado Department of Public Health and Environment
4300 Cherry Creek Drive South
Denver, CO 80246-1530

Dear Mr. Gunderson:

This letter advises you of a minor modification to the Proposed Action Memorandum (PAM for Building 123. Under the approach described in Paragraph 126 of the Rocky Flats Cleanup Agreement, we are submitting a minor modification to you as Lead Regulatory Agency, together with a justification for that modification.

The Building 123 PAM as written describes a three-phase program: demolition of the building; characterization of the soils in related Individual Hazardous Substance Sites (IHSSs)121 and 148; and remediation, if necessary, of the soils should any contamination be found in excess of soil action levels. Portions of the slab would have been removed to gain access to soils for remediation. We are modifying the work scope to delete the remediation phase, deferring this activity to the environmental restoration program.

Attendant to this modification, we will be providing a modification to the Closure Plan for Building 123 Components of Resource Conservation and Recovery Act Unit 40 under separate cover. Some of the contamination found is in the process waste lines within the slab. The modification of the Closure Plan parallels this minor modification to the PAM. We will be proposing deferral of remediation of contamination in the process waste system until the completion of soil sampling.

During the decontamination of Building 123, radioactivity in excess of release levels defined in NuReg 1.86 has been found in four locations: Former Room 105, Former Room 109, Former Room 124, and the South Hallway North Wing. Radioactive contamination has been remediated via scabbling in Room 105 and physical removal in the south hallway. Based on work to date, the residual radioactivity in the slab in Room 109 and in Room 124 after scabbling was such that the surface could not be released. We have decided to defer further decontamination efforts until after the characterization of the soils under and around the slab (IHSSs 121 and 148). Once the soils have been characterized, we will use that information together with the information concerning the radioactive contamination remaining in the slab to determine the relative rank of the Building 123 remediation in comparison to other environmental restoration remediation needs.

B123-A-000184

Our investigations of the slab to date have measured surface radioactivity. We have indications of contamination within the slab as evidenced by the radioactivity found on the floor in Room 124. When we attempted to remove the surface contamination by scabbling, a floor drain was encountered. Its entrance exhibited radioactivity in excess of free release limits. No attempt was made to determine radioactivity down in the pipe in the slab. The opening was grouted, a paint fixadent applied, and it was covered with a bolted-down steel plate. Contamination was also found in the wall of Room 124 under a baseboard. That area was scabbled to below the surface of the slab. However, radioactivity still exceeded free release limits in the floor. The area was covered with grout. The area of remaining excessive radioactivity will not be disturbed by demolition.

The other situation we encountered was in Room 109 where a sealed source reportedly had leaked some time in the past. The well which housed the source is approximately twenty feet deep. We have scabbled the surface, but found that the radioactivity still exceeded free release levels. Therefore, we have painted the surface with epoxy paint and covered the area with a bolted-down steel plate.

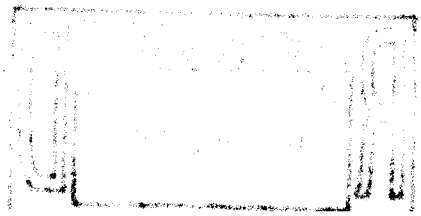
The actions described above have resulted in control of the residual radioactivity such that the wall and ceiling surfaces (not the slab) can be released under NuReg 1.86 release criteria. The activities which could affect the IHSSs will continue to be controlled by Rocky Flats Environmental Technology Site (Site) soil disturbance procedures. We recognize that residual radioactivity *within the slab* may require further action before Site closure. We have decided to defer further action until the soils have been characterized in IHSSs 121 and 148. The need for subsequent remediation efforts will be determined by environmental restoration evaluation after the information is in hand.

The references to the remediation in the Building 123 PAM are presented in the enclosure to this letter. Several clarifying corrections are included having to do with waste determinations and estimated waste volumes. Should you wish to discuss this matter, please call William Fitch at 966-4013

Sincerely,

Steven W. Slaten
RFCA Project Coordinator

Enclosure



cc w/ Enc:
T. Rehder, EPA
K. Dorr, K-H
D. Shelton, K-H

cc w/o Enc:
J. Legare, AMEC, RFFO
R. Tyler, ERWM, RFFO
W. Fitch, ERWM, RFFO
J. Rampe, PLD, RFFO
F. Gerdeman, PCD, RFFO
T. Howell, OCC, RFFO
B. April, RLG, RFFO
A. Parker, K-H

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CHANGE #1
Section 2.0 PROJECT DESCRIPTION

The project will facilitate the decommissioning efforts at Buildings 123, 113, 114, and 123S; ~~remediation~~ characterization of Individual Hazardous Substance Sites (IHSS) 121 and 148; partial closure of Resource Conservation and Recovery Act (RCRA) Unit 40; and decontamination of radiologically-contaminated facility systems. Any subsurface contamination identified during the course of the project will be evaluated by ER subsequent to removal of Building 123 and is not considered to be part of the scope of this project. ~~The Building 123 slab and foundation will be removed as required to remediate any subsurface contamination as dictated by soil sampling results.~~ The PAM will thoroughly examine building removal activities, including relocation of the building tenants; removal of furniture, equipment, and excess chemicals; characterization of the building hazards and potential contamination; and removal of all asbestos-containing material (ACM).

This change was made to clarify that soil remediation was not part of the scope of this project. Characterization of under building contamination will be conducted at a sufficient level to allow this site to be added to the ER Ranking List.

CHANGE #2
SECTION 2.4.9 Metals

To support industrial hygiene efforts, samples were collected from selected painted surfaces in Building 123 and were analyzed for the following metals: lead; chromium; cadmium; and arsenic. ~~to support industrial hygiene efforts.~~ Site historical knowledge and recommendations by an accredited inspector were utilized in the sampling process. Twenty-one (21) samples were collected, and analysis was conducted using Atomic Absorption Spectroscopy by a third independent party. All paints indicated detectable levels of one or more of the metals. Representative samples were taken and analyzed ~~will be analyzed~~ using the Toxicity Characteristic Leaching Procedure (TCLP). ~~Should the TCLP analysis indicate the painted surfaces are leachable for heavy metals, they will be managed as hazardous waste. Otherwise,~~ Analysis indicate that although painted surfaces contain significant levels of heavy metals by total analysis, the metals are in a form that does not readily leach. None of the TCLP sampling conducted on paint samples in B123 indicated RCRA regulated levels of these metals. Therefore, painted surfaces of construction materials will be managed as RCRA non-hazardous solid waste. ~~standard construction debris.~~

This section was modified to clarify how painted surfaces containing heavy metals were characterized as non-hazardous.

CHANGE #3
SECTION 3.0

Phase IV, Characterization ~~and Remediation~~ of IHSS 121 and 148. This phase includes the following tasks:

- Sampling the building slab and surrounding soils according to the Sampling Analysis Plan.
- Sample analysis.
- Developing a ~~remediation plan~~ final sampling report based on the results of the sampling.
- ~~Remediation activities~~. Submittal of final sampling report/analysis to ER.

This change was made to clarify that soil remediation was not part of the scope of this project. Characterization of under building contamination will be conducted at a sufficient level to allow this site to be added to the ER Ranking List.

CHANGE #4
SECTION 3.0

All building utilities and associated facility safety systems will be disconnected prior to commencement of building demolition. The active process waste piping system in Building 123 (a component of RCRA Unit 40) will undergo closure according to State approved RCRA Closure Plan. The building will be safely dismantled and the resulting debris and waste will be properly characterized and disposed at appropriate off-site facilities. In addition, soil sampling beneath and adjacent to the building will be conducted using the methods described in a Sampling and Analysis Plan (SAP) prepared for this project. The SAP will be submitted to CDPHE at least 45 days prior to implementation. Characterization data from IHSS 121 and 148 will be provided to Environmental Restorations (ER) Projects for evaluation and consideration for remediation. The outcome of this evaluation will be to adjust the ranking of these IHSSs, if necessary, in the ER Ranking List. ~~Underground pipelines will be managed with respect to soil sample analyses results.~~ Soil remediation, if necessary, will be conducted by ER in compliance with ~~respect to~~ RFCA Action Levels in a manner that is protective of human health and the environment. Soil remediation is not within the scope of this project.

This change was made to clarify that soil remediation was not part of the scope of this project. Characterization of under building contamination will be conducted at a sufficient level to allow this site to be added to the ER Ranking List.

CHANGE #5

For purposes of clarification the following Section numbers were added: 3.1.2.1; 3.1.2.2; 3.1.3.1; and 3.1.3.2.

CHANGE #6
SECTION 3.1.2.2
3.1.2.2 Soil Characterization

Soil characterization will include sampling and analysis of soil beneath and surrounding Building 123. Following removal of the building superstructure, samples will be collected through the slab ~~to determine need for soil remediation~~ and from the surrounding area. A SAP will be written to guide characterization activities in these areas. ~~The SAP will be finalized prior to the award of the decommissioning contract.~~ In accordance with paragraph 118 of the Rocky Flats Cleanup Agreement and the August 25, 1997 State of Colorado approval of the Building 123 PAM, the IHSS 148 SAP will be submitted to CDPHE for review and approval. The SAP will incorporate a review of existing records to establish the location of potentially contaminated areas and to define sampling protocol. ~~Sample location, depth and frequency will include recommendations from the RFETS Statistical Applications Group~~. Current planning indicates a need for ~~approximately fifty (50)~~ soil samples from beneath both the slab of Building 123 and from areas surrounding underground OPWLs. Samples locations will be designed ~~collected at depths immediately below the pipe~~ to locate ~~any~~ contamination that may have leaked from the ~~lines~~ OPWLs and the RCRA regulated underground waste process lines associated with Building 123. Samples will be analyzed for volatile organic compounds (VOCs), Target Analyte List (TAL) metals, radionuclides, and nitrates. Data quality requirements supporting the analysis effort will conform to criteria established in *Guidance for the Data Quality Objective Process,* EPA QA/G-4 (EPA 1994).

The reasons for these modifications are:

- *To remove any linkage between the development and approval of the SAP and the awarding of the decommissioning contract. The SAP has to be approved by CDPHE as required by RFCA and the approval letter for the 123 PAM. There is no need for any further linkage; and*

- *Specific details of the SAP should not be incorporated into the PAM but left to the review and approval of CDPHE regarding that specific document. Therefore, specific details regarding the SAP have been removed.*

CHANGE #7
SECTION 3.1.2.3
3.1.2.3 OPWL Characterization

A plan for partial closure of RCRA Unit 40 will be written to characterize and manage all active OPWLs associated with Building 123, as all abandoned lines were properly decommissioned prior to implementation of RCRA regulations. Characterization will include flushing the active lines ~~with rinse water~~ with decontamination solutions as identified in the approved RCRA Closure Plan for this unit in order to remove residues, then sampling the final rinsate for constituents. Soil sampling analysis of areas adjacent to abandoned OPWLs will be used to characterize and rank using the ER ranking system. The need for further remediation, if any, will be evaluated by ER. ~~managed according to analyses results from soil samples collected adjacent to and beneath the lines.~~

These modifications were made to ensure consistency with the RCRA Closure Plan for the partial closure of RCRA Unit 40. In addition, these changes were made to clarify that soil remediation was not part of the scope of this project. Characterization of under building contamination will be conducted at a sufficient level to allow this site to be added to the ER Ranking List.

CHANGE #8
SECTION 3.1.3.2
3.1.3.2 Soil Remediation

Soil remediation is not within the scope of this project. Sufficient soil sampling beneath the building slab and from the surrounding area will be taken in order to adequately characterize the IHSS 121 and 148 areas around B123. This information compiled in a sample report will be submitted to ER. ER will use this information to adjust the ER Ranking List, if necessary. The Ranking List will determine, what if any, soil remediation will be conducted at this location.

~~Remedial actions will be contingent upon compliance of sample analysis results with Tier II "action level" criteria defined in Appendix 6 of the RFCA. The extent of subsurface contamination will dictate the method of remediation. Areas in which soil sample results meet Tier II criteria will require no further action. Areas that exhibit radioactive or chemical contamination at levels in excess of RCRA regulatory levels will be excavated using conventional techniques and removed and disposed offsite as RCRA hazardous waste. Soil will be moved to a temporary staging area immediately adjacent to the site and placed in rolloff containers until proper disposition is determined. Contaminated soil will ultimately be disposed offsite as RCRA hazardous waste. At the completion of excavation activities, verification samples will be collected along the base and sides of the excavation(s) to determine post action condition of the subsurface soils. Samples will be analyzed according to the SAP. If analytical results indicate that contamination is present above Tier II Action Levels, further excavation and sampling will continue until the Tier II criteria are met.~~

This change was made to clarify that soil remediation was not part of the scope of this project. Characterization of under building contamination will be conducted at a sufficient level to allow this site to be added to the ER Ranking List.

CHANGE #9
SECTION 3.1.3.3

3.1.3.3 Evaluation of Process Waste Lines and Active Sumps ~~OPWL Remediation~~

RCRA Clean Closure of the active process waste lines and their associated sumps ~~Proper closure of active lines~~ will be contingent upon ~~rinsate and soil~~ sampling analyses ~~results~~. Partial closure of RCRA Unit 40 will be conducted in accordance with Colorado Hazardous Waste Regulations (265, Subpart G) which requires a 30-day public comment period. Remedial and disposal options for partial closure of RCRA Unit 40 will be further defined in a separate closure plan. In the event that no contamination above Tier II action levels is found ~~is detected~~, no further closure work will be required except that underground active lines will be foamed and capped in place.. In the event that contamination above the Tier II action levels is detected, these portions of RCRA Unit 40 will either be deferred to ER for evaluation or the decontamination process as defined in the RCRA Closure Plan will be repeated.

Soil contamination associated with abandoned lines will be characterized to the extent that ER can use this information to rank the site and determine what if any, remediation will take place.

~~Closure of abandoned lines will be managed with respect to soil sampling analyses results. Any indication of soil contamination as a consequence of leaking underground lines will eventuate proper removal and disposal of the lines. Partial closure of RCRA Unit 40 will be conducted in accordance with Colorado Hazardous Waste Regulations (265, Subpart G) which requires a 30 day public comment period. Remedial and disposal options for partial closure of RCRA Unit 40 will be further defined in a separate closure plan.~~

This modification was made to be consistent with the RCRA Closure Plan for the unit and clarify that if contamination was found in excess of TIER II standards that the operator had two options: Defer to ER; or Repeat the decontamination process as described in the closure plan.

CHANGE #10
SECTION 3.4
3.4 WASTE MANAGEMENT

A Waste Management Plan will be developed for the project to define waste management activities. Estimates of waste volume indicate that decontamination, dismantlement, and decommissioning of Building 123 ~~and the remediation of surrounding areas~~ will generate less than 300 cubic yards (cu yd^3) of rubble ~~and contaminated soil~~. The waste will be designated as LLW, LLM, hazardous, or industrial waste and will be managed in accordance with State and Federal regulations by properly trained personnel.

This change was made to clarify that soil remediation was not part of the scope of this project. Characterization of under building contamination will be conducted at a sufficient level to allow this site to be added to the ER Ranking List.

CHANGE #11
SECTION 4.1.1
4.1.1 Proposed Action

The proposed action is the Decommissioning and Demolition (D&D) of Building ~~123, including site remediation~~. D&D activities ~~and site remediation~~ are to follow a project-specific plan approved by DOE and CDPHE. Activities would generally consist of site and facility characterization, decontamination, dismantlement, and waste disposition. ~~and remediation of any contaminated soil and pipelines~~. All hazardous, LLW and LLM generated by D&D activities would be transported to an appropriate offsite facility for disposal. The objective of the proposed action is to obtain from DOE and CDPHE a timely release of the site for unrestricted use.

(Two paragraphs for which there are no changes have been omitted.)

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~~Final D&D activities would include remediation of soil and underground piping beneath and surrounding the building slab. Remediation may include removal of contaminated soil, associated pipelines, and/or the concrete slab. Following proper remediation, the site would be regraded and seeded in an attempt to return the site to a natural state.~~

This change was made to clarify that soil remediation was not part of the scope of this project. Characterization of under building contamination will be conducted at a sufficient level to allow this site to be added to the ER Ranking List.

CHANGE #12
APPENDIX B SUMMARY OF WASTE MANAGEMENT PLAN

Estimated generation volumes incorporated into Building 123's Waste Management Plan (June 1997) may differ from those volumes used in this summary. Variations are due to completion of additional characterization and selection of waste management options.

WASTE STREAM	PACKAGING AND ONSITE STORAGE	FINAL DISPOSITION	ESTIMATED GENERATION VOLUME
ASBESTOS NON-RAD Friable Non-friable	Gray 55 gallon drums or strong tight boxes; friable 6 mm plastic double bagged; crate, roll-off; B666 or outside	Friable, Kettleman Hills through Chem Waste Contract Non-friable- U.S.A. Waste, Erie Co.	~~Friable 740 cu yds~~ ~~Non-friable <1 cu yd~~ Friable 120 yds³ Non-friable 90 yds³
ASBESTOS RAD Friable Non-friable	White 55 gallon drums or boxes; 6 mm plastic double bagged or strong tight boxes/crates; B664 or B644 Cargo Containers	Nevada Test Site (NTS)	~~4 cu yds~~ Friable 170 yd³ Non-friable 130 yd³
PCBs NON-RAD ballasts non-leaking	Black and yellow drum with a plastic liner Building 666	Chem Waste contract to Rollins Inc. at Deerpark, Tx.	< 1 cu yd. This sum is a total of all PCB categories. Until the ballasts are removed, it is impossible to categorize this waste stream correctly.
PCBs NON-RAD leaking ballasts and all other regulated PCBs (articles, etc.)	Black and yellow drum with plastic liner; document on traveler if TSCA regulated. Building 666	Chem Waste contract to Rollins Inc. at Deerpark, Tx.	Totaled in PCB NON-RAD category
PCBs RAD ballasts, non-leaking (LLW only, not TSCA regulated)	White drum with a plastic liner B666	Oak Ridge	Totaled in PCB NON-RAD category
Hazardous Waste NON-RAD fluorescent tubes Solvents, Paints, lead, chemicals, metals	Black and white drum tubes crushed on-site 123S or RCRA Unit 1	Chem Waste Contract	<1 cu yd
PCBs RAD Leaking ballasts and all other rad contaminated (LLW) and TSCA regulated wastes	White drum with a plastic liner B666	Oak Ridge	Totaled in PCB NON-RAD category

WASTE STREAM	PACKAGING AND ONSITE STORAGE	FINAL DISPOSITION	ESTIMATED GENERATION VOLUME
Hazardous waste rinsate (rad and non-rad) This waste stream will be generated during RCRA closure of part of RCRA Unit 40.	Process waste system,	Managed onsite in a wastewater treatment unit (building 374)	~~600 gallons~~ 7500 gallons
Mixed Wastes RAD Non-homogeneous Homogeneous	White 55 gallon drum 904A or Unit 14 or Unit 15A in Building 906	Non homogeneous LLMW does not have a designated disposal site at this time Homogeneous Oak Ridge LLM and LL solvents Envirocare, Utah	~~25 cu yds~~ ~~Envirocare can take solids and liquids (non-organics) that can be solidified~~ Homogeneous: 9 yd^3 Non-homogeneous: <1 yd^3
Low Level Waste plaster, wall materials, windows, panels, cement, etc.	White drum or white boxes or full size wooden crates complying with WO 1100 or WO 4034 B664 Cargo Containers or B440 Cargo Containers	Nevada Test Site	~~300 cu yds~~ 375 yd^3
Sanitary or Industrial Waste NON-RAD	Rolloffs either 20 or 30 yard roll offs	U.S.A. Waste, Erie, Colorado	~~150 cu yds~~ 3500 yd^3
PU&D materials and processed RCRA Scrap Metal destined for reclamation NON-RAD	Not regulated under RCRA [file systems, cabinets, shelves, desks, fumes hoods, muffler furnaces, lab benches, etc.]	Per PU&D; or Per RF contract	500 cu yds
Processed RCRA Scrap Metal destined for reclamation RAD	White box and/or container	No contract yet in place. Options include SEG and MSC. No shipments will be made until a contract is in place with a K-H approved vendor.	~~Characterization not complete, estimate unavailable.~~ <1 yd^3

In the event a waste stream, not identified in this summary, is generated by this project and the waste stream has the potential of impacting human health or the environment, then RMRS or its subcontractor is required to immediately notify Kaiser-Hill's Environmental Compliance.

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Modifications to APPENDIX B were made to more accurately reflect actual waste generation volumes.